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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,961	03/11/2004	Koji Hirota	250349US-3S CONT	4004
22850 7590 02/06/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314			EXAMINER DEGHAN, QUEENIE S	
			ART UNIT 1791	PAPER NUMBER
			NOTIFICATION DATE 02/06/2008	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/796,961

Applicant(s)

HIROTA ET AL.

Examiner

QUEENIE DEGHAN

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: The applicant has updated the specification to renumber some parts in drawing 11, but has not updated drawing 11 to reflect the new numbering. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1, 3, 8, 10, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (6,605,893) in view of Reagh (2003/0010063) and Kato et al. (English translation of JP Abstract 60-141631). Ando discloses a method for forming a glass frame or sidewall as a vacuum sealing means comprising heating the end portions, having longitudinal surfaces and a terminal end surface, of glass plates to soften them, overlapping the end portions, and joining the glass plates at the end portions and forming corner portions to the thickness of one belt shaped glass sheet, while being held in a vertical plane, with the inside corner portions vertically upward ([0059], [0060], drawing 7). Ando fail to disclose overlaying the end portion on one another. Reagh teaches a simple way of manufacturing a glass frame by overlaying the longitudinal surfaces of the end portions of glass plates on top of one another in the thickness direction of each glass plate and subsequently fusing the end portions together ([0044]). It would have been obvious to one of ordinary skill in the art at the

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time of the invention to alternatively connected the glass plates of Ando in a similar fashion as Reagh, that is laying the end portions on top of one another in forming a glass frame because Reagh teaches that overlaying ensures a better fusing between the glass plates as oppose to just simply abutting the pieces together.

4. Furthermore, Ando disclose heating, fusing and welding the end portions of the glass plates together, Ando does not mention pressing the ends portions together. Additionally, as can be seen in figure 13 of Reagh, the sections of the overlaid sections results in a thicker portion of glass. Kato disclose an alternative method for making glass frames or sidewalls wherein the corner portions of the frame also results in a larger thickness. Kato teaches the need to level out the thickness, where glass bulges out in the direction of the thickness of the glass sheet, by pressing the bulging parts from both sides towards the longitudinal surfaces and flattening out corner portions to a thickness of one glass sheet (abstract, figures 2B and 3). It would have been obvious to one of ordinary skill in the art at the time of the invention to utilize the pressing step of Kato in the glass framed formed by Ando and Reagh, in order to flatten the overlaid end portions in to a thickness of one glass sheet in order to provide for glass frame suitable for a spacer for flat image displace devices by ensuring a vacuum seal for the device because of the uniform thickness of the glass frame.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (6,605,893) in view of Reagh (2003/0010063) and Kato et al. (English translation of JP Abstract 60-141631), as applied to claims 1 and 8, in view of Stroud (2,049,528). Ando and Kato et al. fail to disclose glass sheets with end corners partially notched. Stroud

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teaches glass sheets that are superposed on each other with end corners of the belt sheets partially notched in figures 1-7. It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide for notches on the glass sheets of Ando, as demonstrated by Stroud, to secure the sheets together.

6. Claims 2 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (6,605,893) in view of Reagh (2003/0010063) and Kato et al. (English translation of JP Abstract 60-141631), as applied to claims 1 and 8, in view of Cypher et al.

(3,223,504). Kato et al fail to disclose the length of time the glass sheets are clamped. Cypher et al. teach clamping glass sheets for 2 seconds before retracting the clamps. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the clamping time of Cypher et al. since 2 seconds is a sufficient amount of time for impressing the desired shape into the softened glass, as taught by Cypher et al.

7. Claims 5-6, 11-12, and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (6,605,893) in view of Reagh (2003/0010063) and Kato et al. (English translation of JP Abstract 60-141631). Ando discloses a method for forming a glass frame or sidewall comprising heating the end portions of glass plates with burners, overlapping only the end portions and joining the glass plates at the end portions and forming lap portions to the thickness of one belt shaped glass sheet ([0059], [0060], drawing 7). Reagh an alternative way of manufacturing a glass frame by overlaying the longitudinal surfaces of the end portions of glass plates on top of one another in the thickness direction of each glass plate and subsequently fusing the end portions

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together ([0044]). Although Ando and Reagh do not specifically describe an apparatus for holding the glass sheets, it would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a holding portion to hold the glass sheets together so that the end portions can meet up and fuse together. Ando and Reagh also do not mention pressing the ends portions together. Kato et al. teach pressing corner portions with larger thickness together from both sides in a thickness direction via pressure dies (abstract, figures 2B and 3). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the pressing dies of Kato et al. in the method of Ando and Reagh, in order to flatten the overlaid end portions in to a thickness of one glass sheet in order to provide for glass frame suitable for a spacer for flat image display devices by ensuring a vacuum seal for the device because of the uniform thickness of the glass frame. Also, it would have been obvious to one of ordinary skill in the art at the time the invention was made to expect that pressure dies of Kato to be movable via a drive, since it would allow for the opening and closing of the dies.

8. Claims 7 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ando (6,605,893) in view of Reagh (2003/0010063) and Kato et al. (English translation of JP Abstract 60-141631), as applied to claims 6 and 11 above, in view of Cathers (4,228,993) and Andrewlavage, Jr. (6,616,025). Ando and Kato fail to disclose a base supporting a rack and sliding mechanism for handling the glass sheets. Cathers teaches of a base (32) that is rockable around a substantially horizontal axis of rotation, supporting a rack (30) that capable of orienting the glass sheets in any desired direction

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(i.e. vertical) (fig. 1). Andrewlavage, Jr. also teaches a base (29), which supports the rack (17) so that glass sheets are within a vertical plane and are rockable around a substantially horizontal axis of rotation (figure 12). Furthermore, Andrewlavage, Jr. teaches of a sliding mechanism (37a, 37b), which supports the rack for movement in the longitudinal direction of the glass sheet with respect to the base (fig. 12, col. 5 lines 18-26). It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the base, rack, and sliding mechanisms of Cathers and Andrewlavage, Jr. in the apparatus of Ando and Kato for efficient and automatic handling of the glass sheets

Response to Arguments

1. Applicant's arguments with respect to Ando and Kato have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to QUEENIE DEGHAN whose telephone number is (571)272-8209. The examiner can normally be reached on Monday through Friday 8:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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